












642-274

Dart Aerospace Ltd.

Date: Thursday, 19/02/2009 1:59:24 PM
 User: Julie Dawson

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B
Job Number	: 45908A	Part Number	: D206642241
Estimate Number	: 10163	Drawing Number	: D2650 REV F
P.O. Number	:	Project Number	: N/A
This Issue	: 19/02/2009 S.O. No. :	Drawing Revision	: F
Prsht Rev.	: NC	Material	:
First Issue	: / / Type : SKIDTUBES	Due Date	: 09/03/2009 Qty: 1 Um: Each
Previous Run	: 45907A		
Written By	:		
Checked & Approved By	: <u>JLD 09.02.19</u>		
Comment	: Est Rev:M 04.12.02 Revised procedural steps KJ/JLM		
Additional Product			
Job Number: 			
Seq. #:	Machine Or Operation:	Description :	
1.0	DC	DOCUMENT CONTROL	
			
Comment: DOCUMENT CONTROL Photocopy bluefile & type labels per PPP D206-642-241 CHG003			
2.0	D2620	Skidtube, 206 Skidtube	
			
Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s) Pick: Qty Part Number Description Batch 1 D2620 Bent Tube 3" OD 44502 SL 9-2-20			
3.0	D32861	Doubler	
			
Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s) Pick: Qty Part Number Description Batch 2 D3286-1 Doubler B414286 ② H 9-2-23			
4.0	D2647	Cap	
			
Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s) Pick: Qty Part Number Description Batch 1 D2647 Fwd Cap B43846 BB 9-2-20			
5.0	SKIDTUBES 1	SKIDTUBESS RESOURCE 1	
			
Comment: LANDING GEAR RESOURCE 1 1-Deburr Fwd edge of tube SL 9-2-20			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 19/02/2009 1:59:24 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 45908A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

2- Remove ridge on inside of Fwd edge of tube as per Dwg D2650

SL 9-2-20

3-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required.

Pick:

Qty Part Number Description Batch

A/R Aluminum Rod M110676/M109213 BE 9-2-20

4-Grind weld flush to cap on top surface only.

BE 9-2-20

5-Cut Aft end as per dwg 2650 from front of tube and Deburr

6-Remove inner indexing ridge on Aft end of skidtube as per Dwg D2650

7-Open holes for Aft end cap as per Dwg D2650 with #30 Drill Bit using DT8025.

8-Drill pilot holes using Dt 8167.

9-Locate DT8732 from inner Aft saddle hole & 3rd crossbolt hole. Insert D3286-1 doubler using DT8732 & D206-642-241-T1, then locating doubler off of 3/16" holes, cleco DT8732 & doubler leaving DT8732 for added support.

10- Drill D3286-1 doubler rivet holes in tube using # 40 drill, spot drilling doubler at the same time.

11-Working from the center out, drill # 30 holes into D3286-1 doubler. Cleco each hole as it is being drilled. Verify angle of holes to accommodate rivet heads.

12-Remove 3/16" cleco's only and open GHW holes to Ø0.500" as per Dwg D2650

13-Remove D3286-1 doublers, identify orientation, deburr, then attach them to the workorder

14-Remove indexing edge using DT8741 as per Dwg D2650

15-C'sink GHW rivet holes as per Dwg D2650

M
9-2-23

M
9-2-24

6.0

QC6

DIMENSIONAL CHECK



holes are within 0.005".
From side to side



Comment: DIMENSIONAL CHECK

09/02/24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 19/02/2009 1:59:24 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 45908A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

7.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Open crossbolt holes to Ø0.3125"

2-Drill pilot holes using DT8028-3, then open to Ø0.297" as per Dwg D2650. Open Aft cap hole #6.

3-Deburr tube and blow out chips from inside the tube

3
09/02/24

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

① H 9-2-25

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

DP 9-2-25

10.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Open holes to finished size as per Dwg D2650, D2650-3 Drilling Detail (without cutting fluid)

2-C'sink crossbolt spacer holes as per Dwg D2650(without cutting fluid)

3-Deburr and blow out all chips from inside the tube

H
9-2-25

11.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

holes are 'about' 0.010" from
side 2 side.

8 09/02/25 (X)

12.0

CR3212404

Cherry Rivet



Comment: Qty.: 52.0000 Each(s)/Unit Total: 52.0000 Each(s)

Pick:

Qty Part Number

Description Batch

52 CR3212-4-04 Rivet

M 7385-3-44

HA 229 (54) H 9-2-25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 19/02/2009 1:59:24 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 45908A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

D26543

Web



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D2654-3

Web

B45910 ① M 9-2-25

14.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Locate, install and rivet doublers as per Dwg D2650. Micro-shave rivets as required

2-Bond D2654-3 web in place as per QSI 015. Ensure holes line up. Allow 12 Hrs. cure time before cutting

Start Date: 9-2-25 Time: 11:20

Finish Date: 09-2-26 Time: 7:40AM

Pick:

Qty Part Number Description Batch

A/R Sikaflex-291

M109883

Sikaflex expire date:

9-7-7

M
9-2-25

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

9-2-26 ①

16.0

D2649

Cross Bolt Spacer



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)

Pick:

Qty Part Number

Description Batch

18 D2649

Crossbolt spacer

B44364

BE 09/02/26

17.0

D32863

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3286-3

Spacer

B43862

BE 09/02/26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 19/02/2009 1:59:24 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 45908A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

18.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-remove alodine from around hole and prepare for welding

BE 09/02/26

2-Insert D2649 crossbolt spacers. Weld as per QSI 004 and Dwg D2650. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod.

Pick:

Qty Part Number Description Batch

A/R Aluminum Rod M110 M109213 BE 09/02/26

3-Grind welds flush as per Dwg D2650.

u a-2-26

4-Using DT8733, insert (2) D3286-3 spacers as per QSI 004 and Dwg D2650. Remember to back drill each hole to Ø0.402" before welding other side. Use SS rod as required.

A/RSS Rod NONE BE 09/02/26

5-Counterbore 5/16" x 0.750" deep except 7th hole from Aft end as per Dwg D2650. Deburr

u a-2-26

19.0

CCR264SS33

Cherry Rivet



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 CCR264SS33-3 Rivets M110625 ② u a-2-26

20.0

CR3212403

Cherry Rivet



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Cherry Rivet

batch: M110139 ② u a-2-26

21.0

D2680041

Nut Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2680-041 Nut Plate B34599 ① u a-2-26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 19/02/2009 1:59:24 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 45908A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

22.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Install D2680-041 Nut Plate as per Dwg D2650

23.0

QC9 + QCI0

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

QC10 - 509/02/07

QC9 - 10 09-02-27

24.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5 09/02/07

25.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Pressure wash as per QSI 005

BL 09-03-2

26.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref. 4.3.5.1) as per QSI 005 4.3. Make sure Nut Plate Thread is protected using paint screw, and mask GHW studs.

START TIME: 3:40

OVEN TEMPERATURE: 320°

FINISH TIME: 4:10

FL 09/03/02

27.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

09-03-04

28.0

D26483

Wearpad



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

4 D2648-3

Wearpad

1344548

918 09-03-04

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 19/02/2009 1:59:24 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 45908A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

29.0

D265613

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2656-13

Wearshoe

B412772

JS

30.0

D265621

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2656-21

Wearshoe

B412776

JS

31.0

D265633

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2656-33

Wearshoe

B320756

** JS*

32.0

D34291

Wearpad



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3429-1

Wearpad

B344169

JS

33.0

ALS41032130

Insert



Comment: Qty.: 44.0000 Each(s)/Unit Total : 44.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

44 ALS4-1032-130 Inserts

M1108606

or (see QSI 017)

JS 09-03-04 (X)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 19/02/2009 1:59:24 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 45908A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

34.0

AN960JD10L

Washer



Comment: Qty.: 46.0000 Each(s)/Unit Total : 46.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

46 AN960JD10L

Washer

M 109632

MS

35.0

MS27039108

Screw



Comment: Qty.: 46.0000 Each(s)/Unit Total : 46.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

46 MS27039-1-08

Screw

M 110467

MS

36.0

D26511

Plug



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

18 D2651-1

Plugs

B 43990

MS

37.0

D26513

O-Ring



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

18 D2651-3

O-Rings

B 43849

MS

38.0

MS27039406

Screw



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 MS27039-4-06

Screw

M 109061

MS

39.0

AN960JD416

Washer



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 AN960JD416

Washer

M 108161

MS

09-03-04 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 19/02/2009 1:59:24 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 45908A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

40.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1]

1- Install inserts & wearpads as per dwg D2922. Use a drop of Sikaflex inside insert holes before installing

✓ wearpad/wearplate.

A/R Sikaflex-291

1109883

Sikaflex expire date:

09/14

✓ 2-Install D2651-3 O-Rings on D2651-1 plugs with Petroleum Jelly and install plugs as per Dwg D2650 (D2650-3 detail). Clean excess adhesive.

✓ 3-Install MS27039-4-06 Screw as per DEO 9153.

MS 09-03-04 v1

41.0

D2646

Aft Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2646

Aft Cap

B41435

MS

42.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Install D2646 Aft Cap and seal with Sikaflex. Clean excess adhesive

A/R Sikaflex-291

1109883

Sikaflex expire date:

09/11

MS 09-03-04

2-Wing Walk as per Dwg D2650-3 and QSI 005 4.4

Batch: 1110454

MS 09-03-06

43.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

S 09/03/06

44.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/03/06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 19/02/2009 1:59:24 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH GEAR SKIDTUBE ASSEMBLY 206 A/B

Job Number: 45908A

Part Number: D206642241

Job Number:



Seq. #:

Machine Or Operation:

Description :

45.0

PACKAGING 1

PACKAGING RESOURCE #1



(12)

Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D206664241 IF APPLICABLE

Location:

PPP Rev:

PPP BUS908 Ph/11

59

46.0

QC21

FINAL INSPECTION/W/O RELEASE



(1)

Comment: FINAL INSPECTION/W/O RELEASE

209/03/13

Job Completion



MKF
09-03-13

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -1	QTY -3	QTY -5	QTY -7	PART NUMBER	DESCRIPTION
X				D2650-1	SKIDTUBE ASSEMBLY
	X			D2650-3	SKIDTUBE ASSEMBLY
		X		D2650-5	SKIDTUBE ASSEMBLY
			X	D2650-7	SKIDTUBE ASSEMBLY
1	1	1	1	D2600-1-160	EXTRUSION
1				D2654-1	WEB
	1			D2654-3	WEB
		1		D2654-5	WEB
			1	D2654-7	WEB
1	1	1	1	D2646	AFT CAP
1	1	1	1	D2647	CAP
17	18	19	23	D2649	CROSS BOLT SPACER
16	18	14	22	D2651-1	PLUG
16	18	14	22	D2651-3	O-RING
1	1	1	1	D2680-041	NUT PLATE
2	2			D3286-1	DOUBLER
2	2			D3286-3	STUD
42	44	54	60	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130)
2	2	2	2	AN960JD10L	WASHER
2	2	2	2	CCR264SS3-3	RIVET
2	2	2	2	CR3212-4-03	RIVET
2	2	2	2	MS27039-1-08	SCREW
1	1	1	1	MS27039-4-06	SCREW
1	1	1	1	AN960JD416	WASHER
52	52			CR3212-4-04	RIVET

F

F

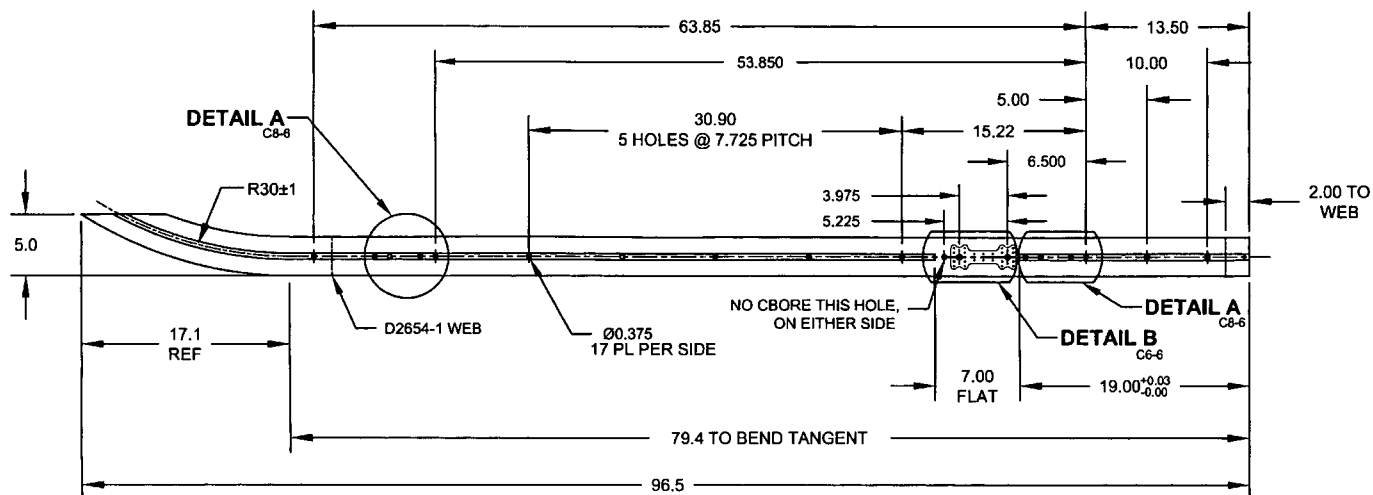
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
-BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 11) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)
- 12) DRILL 20/327 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON -1 TUBE, DT8056-3 ON -3 TUBE, DT8056-5 ON -5 TUBE, AND DT8056-7 ON -7 TUBE. INSTALL INSERTS AFTER FINISH.
- 13) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

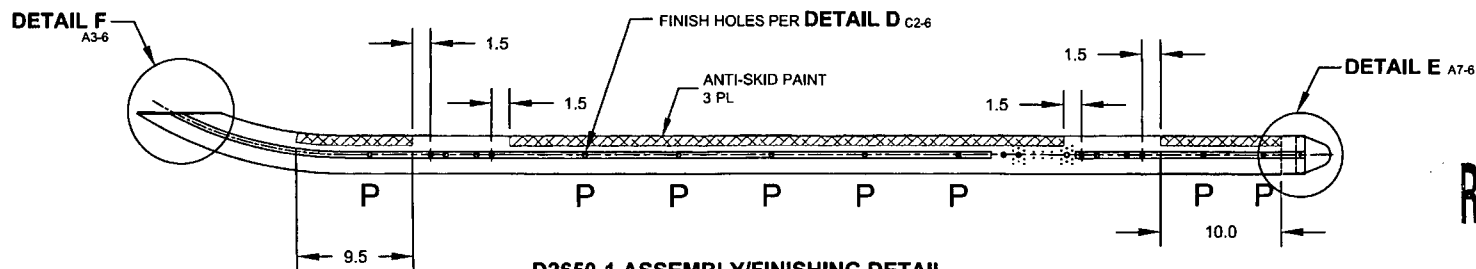
RELEASED
08.07.23

F	DRAWING UPDATED TO CURRENT STANDARDS. SHT 6 ADDED. ALL SECTION AND DETAIL VIEWS TRANSFERRED TO SHT 6. SHT 1 IN PL PART D2649 QTY UPDATED. SHT 6 SECT C-C GRIND INSTRUCTIONS DELETED FROM NOTE 7 (SEE NCR 239).	AJS	08.08.08
E	RMOVE CBORE, CHG DRILL, ADD CHAMFER	CP	08.03.30
D	REDRAW; INCCRP. DE09136/9153/9163 MOD GROUND HANDLING ON D2650-1/-3	CP	04.05.17
C	CHANGE HOLE PATTERN AND FRONT END	DS	97.10.29
B	AS MANUFACTURED CHANGES	DS	97.06.26
A	NEW ISSUE	DS	97.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 1 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

NO 155088F
WORK ORDER
COPY
TO
ENGINEERING
FOR
AMENDMENT
NOTICE



D2650-1 BENDING/DRILLING DETAIL

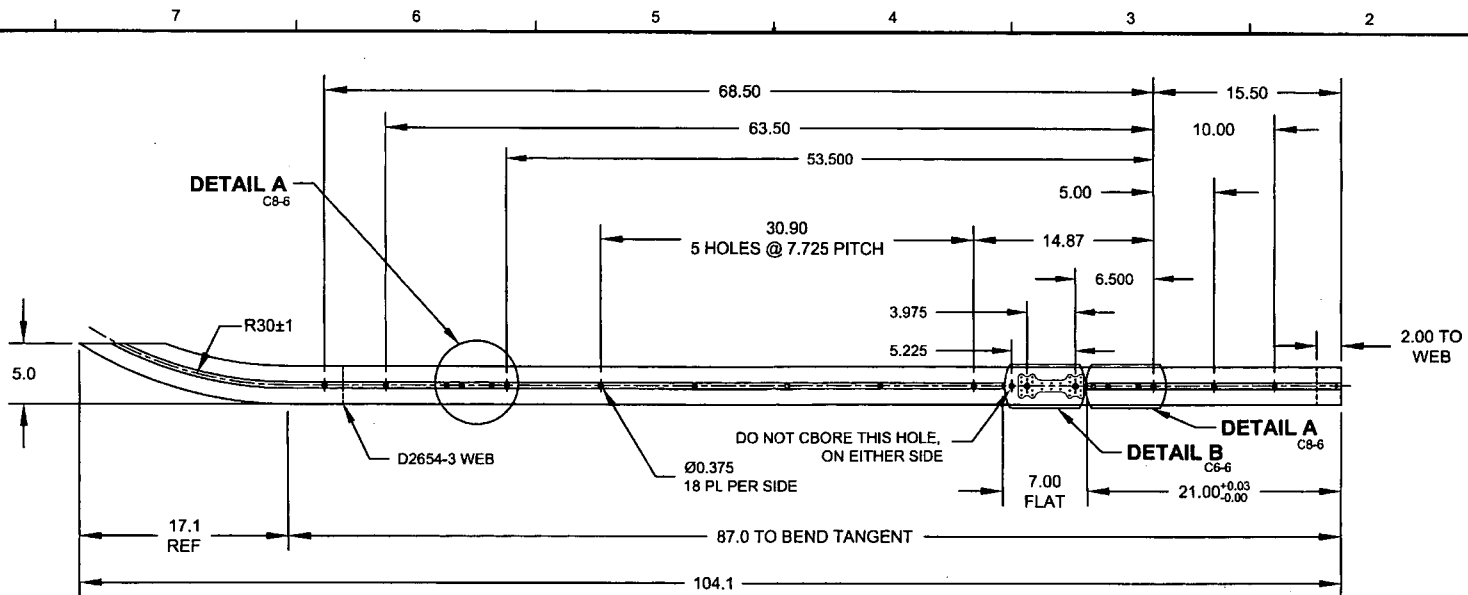


D2650-1 ASSEMBLY/FINISHING DETAIL

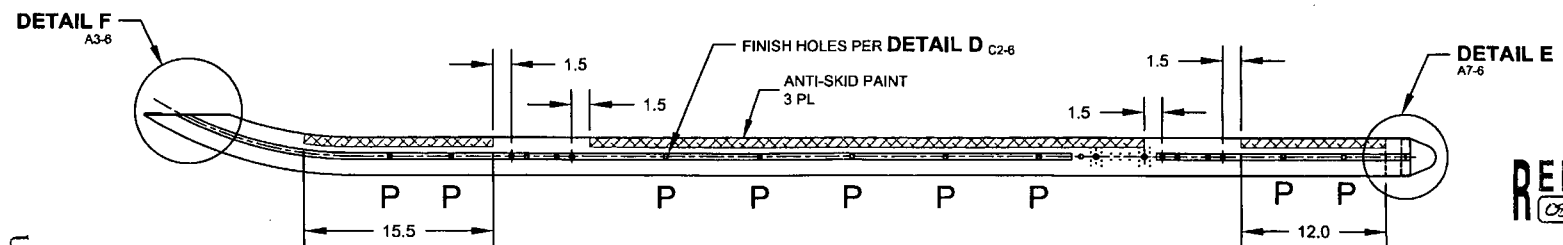
RELEASED
68-0922/117

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 2 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	<small>COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE, OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

NO. 15-1087
WORK ORDER
WITHOUT NOTICE
SUBJECT TO AMENDMENT
UNCONTROLLED COPY
ENGINEERING
RETURN TO
SHOP COPY



D2650-3 BENDING/DRILLING DETAIL

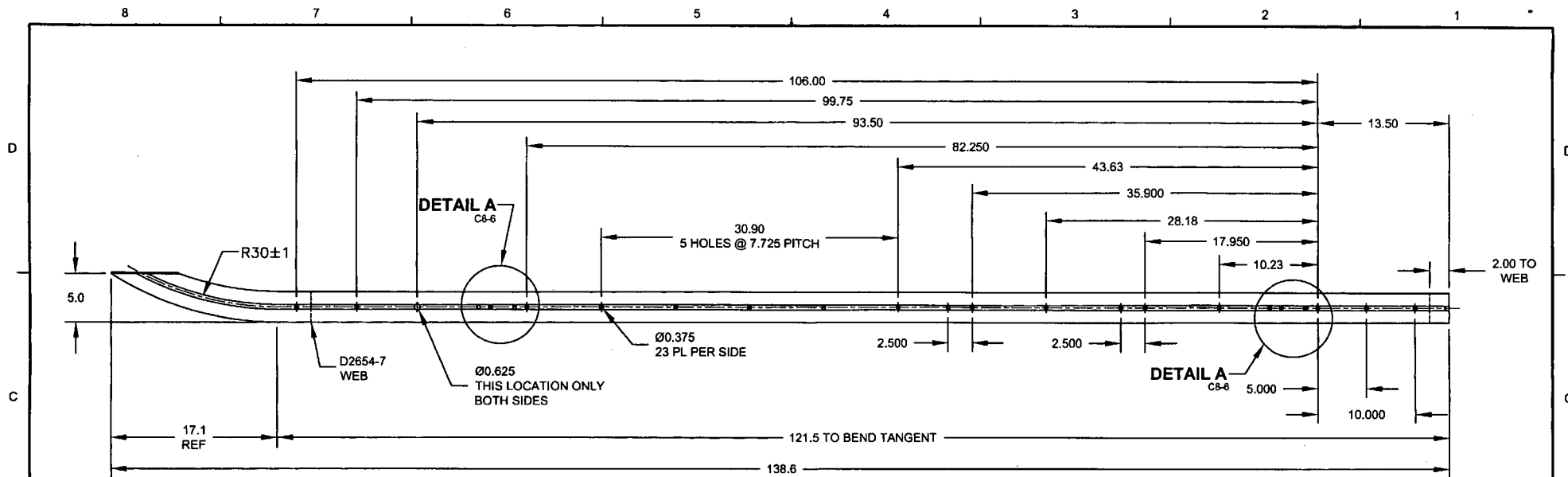


D2650-3 ASSEMBLY/FINISHING DETAIL

RELEASED
08 07 22 / 11

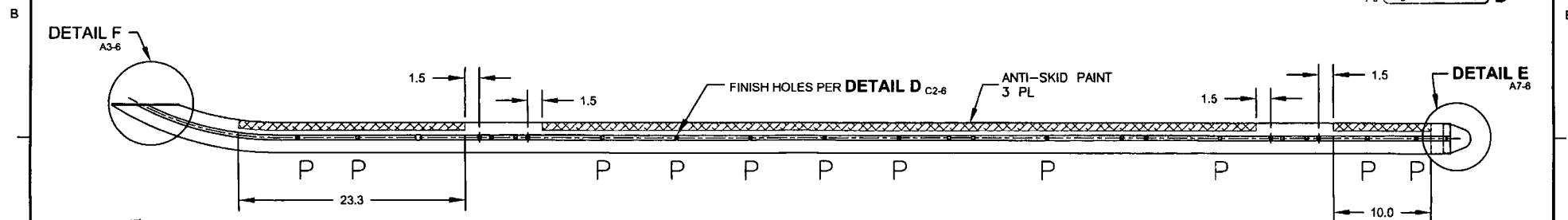
NO. 459087
WORK ORDER
WITHOUT NOTICE
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
ENGINEERING
RETURN TO
SHOP COPY

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 3 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	<small>COPYRIGHT © 1987 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	



D2650-7 BENDING/DRILL DETAIL

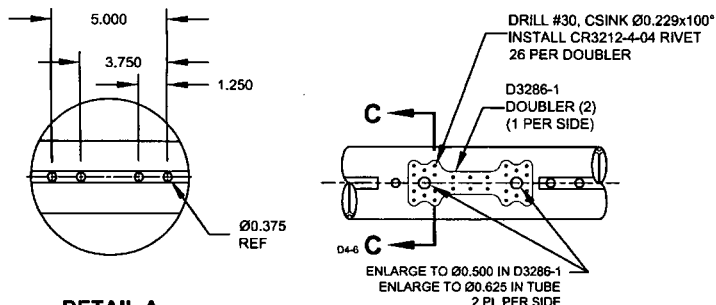
RELEASED
08-07-22



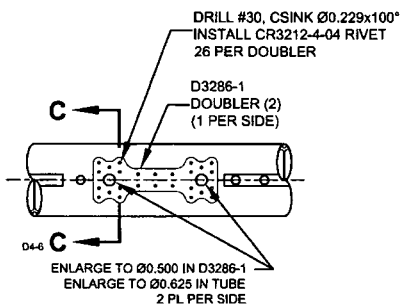
D2650-7 ASSEMBLY/FINISHING DETAIL

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 5 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.			

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOT CE
WORK ORDER
NO 459087

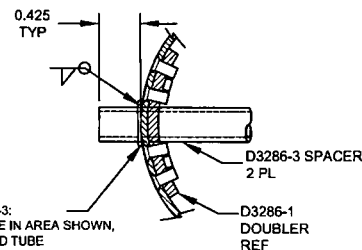


DETAIL A
SCALE 2X
C2-2
D7-2
C2-3
D7-3
C2-4
D7-4
C2-5
D6-5

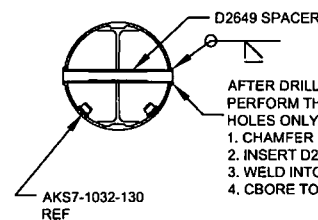


DETAIL B
SCALE 2X
C3-2
C3-3

SECTION C-C C7-6
SCALE NONE

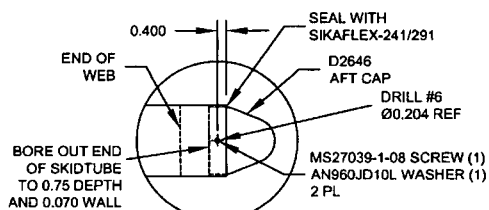


- TO INSTALL D3286-1/3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH ROUND TUBE
 2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
 3. ENLARGE HOLES IN D3286-1 TO Ø0.500
 4. ENLARGE HOLES IN TUBE TO Ø0.625 AND CHAMFER HOLE 0.030x45°
 5. RIVET D3286-1 TO TUBE
 6. INSERT D3286-3 SPACER
 7. WELD IN PLACE.

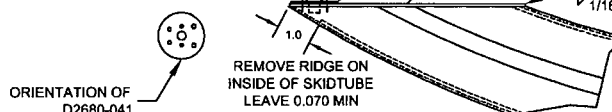


DETAIL D
FOR Ø0.375 HOLES ONLY
SCALE 3X
B4-2
B4-3
B4-4
B4-5

- AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.030 X 45°
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. CBORE TO Ø0.313 X 0.75 DP



DETAIL E
SCALE 2X
B2-2
B2-3
B1-4
B1-5



DETAIL F
SCALE NONE
B6-2
B6-3
B6-4
B6-5

- DETAIL F NOTES:**
1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D2647 (TRIM AS NECESSARY)
 4. WELD D2647 IN PLACE PER DART QSI 004
 5. GRIND FLUSH
 6. RIVET D2680-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH

RELEASED
08-09-22-19

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 455054

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 6 OF 8
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

NO. 191

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Berley Elliot
Job number: 45124 A
Part number: D058 670 041 / D206 642 241
Description: OH 58 / 206 skid
Welding Process: Tig[☒] Mig[]
Base materiel: Aluminium
Current: AC[] DC[]

TEST REQUIREMENTS AND RESULTS

Visual:
Penetration:

pass[☒] fail[]
pass[☒] fail[]

UNACCEPTABLE

Cracks:
Undercut:
Pin holes:
Overlap (cold lap)
Porosity (surface):
Coloration:

pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]

Qualifier Pet. Dignel Date of Test Coupon 9-1-28
Welder Berley Elliot Date of Test Coupon 9-1-28

The above named individual is qualified in accordance with AWS D17.1.2001 to weld